

### **REMARKS**

Claims 15-17, 19-24, 26-33, 35-40 and 42-45 are pending and under consideration in the above-identified application. Claims 1-14 stand withdrawn pursuant to a restriction requirement issued on June 25, 2008 and claims 18, 25, 34 and 41 were cancelled previously.

In the Final Office Action dated March 9, 2009, the Examiner rejected claims 15-17, 19-24, 26-33, 35-40 and 42-45.

With this Amendment, claims 30 and 37 were amended and claims 15-17, 22-24 and 26-27 were cancelled. No new matter has been introduced as a result of the amendments.

#### **I. 35 U.S.C. § 103 Obviousness Rejection of Claims**

Claims 15-16, 19-23, 26-32, 35-39 and 42-45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kitayama et al. (WO 2001/27201)(using U.S. Patent No. 6,827,882 as an English equivalent). Applicant respectfully traverses this rejection.

The claims require a resin composition that includes monomer units having aromatic skeletons ranging from 1 mol % to 100 mol %. The Examiner suggests that this mol % is amount of sulfonic acid and/or sulfonate groups that are finally achieved on the polymer. Office Action, page 3. Applicant respectfully disagrees. The recited range, "aromatic skeletons ranging from 1 mol % to 100 mol %," refers to the aromatic polymer present in the monomer units, not the sulfonic acid groups and/or sulfonate groups.

The claims also require that sulfonic acid groups and/or sulfonate groups are introduced in an amount ranging from 0.01% to 8 mol% onto the aromatic polymer. As a result of the amount sulfonic acid groups and/or sulfonate groups introduced onto the aromatic polymer, the flame retardant has increased compatibility with the resin which results in a high flame-retardant

effect and the resin composition has low moisture absorption which results in high preservation stability. Specification, pages 13, 73-74.

Additionally, the Examiner suggests that sulfonic acid groups and/or sulfonate groups, which are introduced in an amount ranging between 0.10 mol % to 8.0 mol % to the aromatic skeleton is a product-by-process limitation that should not be afforded patentable weight. Applicant contends that the introduction of sulfonic acid groups and/or sulfonate groups of 0.01% to 10 mol % imparts distinctive structural characteristics on the resin composition because it determines the amount of sulfur that is added onto the aromatic polymer, thereby affecting the flame retardancy of the resin. Specification, Table 3. As such, because the amount of sulfur added to the aromatic polymer affects the flame retardancy of the resin, the mol % of sulfonic acid and/or sulfonate groups clearly imparts distinctive structural characteristics on the resin composition. *In re Garnero*, 412 F.2d 276, 279 (CCPA 1979). Thus, if the amount of sulfonic acid groups and/or sulfonate groups introduced to the aromatic skeleton is considered a product by process limitation should be given patentable weight because it affects the flame retardancy of the resin.

Kitayama et al. teaches a flame retardant polycarbonate resin that includes, a polycarbonate resin, a polycarbonate copolymer having phosphorous atoms and an anti-dripping agent. Kitayama et al., Abstract. Kitayama et al. also teaches a ratio of acid base substitution, which includes sulfonic acid, in the aromatic vinyl resin that is 10% to 100%. Kitayama et al., Col. 5 lines 34-36, col. 4, lines 56- 58. The claims, however, require that sulfonic acid groups and/or sulfonate groups are introduced in an amount ranging from 0.01% to 8 mol % onto the aromatic polymer. Clearly, Kitayama et al. does not teach the same mol % of sulfonic acid

groups and/or sulfonate groups as required by the claims. In fact, Kitayama et al. teaches an amount of sulfonic acid that is much greater than the range required by the claims.

Furthermore, as shown in Table 3 of the specification, examples of resin compositions having sulfonic acid groups and/or sulfonate groups in the range of 0.1 mol to 8 mol % have higher flame retardant properties than resins having sulfonic acid from 36 to 95%. Specification, pages 99-101. Accordingly, Kitayama et al., which teaches a sulfonic acid mol % from 10 to 100 mol %, would not have the same flame retardancy as the resin required by the claims.

As such, Kitayama et al. fails to teach or even fairly suggest all the required elements of the claims. Additionally, Applicant respectfully requests that the remaining rejections of dependant claims 33 and 40 based in part on Kitayama et al. be withdrawn because Kitayama et al. fails to teach or even fairly suggest all the required elements of the independent claims, which claims 17, 30 and 37 depend from.

## **II. Conclusion**

In view of the above amendments and remarks, Applicant submits that all claims are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

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